AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-8 (Cancelled)

9. (New) A method for designing ophthalmic lenses in which at least one surface among the set of refractive surfaces on the object side and eye side in the mounted state has a spherical or aspherical surface shape that is formed beforehand, and at least one refractive surface has an aspherical surface shape,

said method being characterized in that designing is performed so that the shape of the refractive surface whose shape is not formed beforehand among the set of refractive surfaces is an aspherical surface shape which is such that the aberration of the ophthalmic lens is corrected in consideration of the laws of Donders-Listing in accordance with at least the refractive power that is necessary for refractive correction of the user or the refractive power that is necessary for astigmatic correction, or both,

said method further being characterized in that an arbitrary meridian of the refractive power necessary for refractive correction of the user is taken as a standard meridian in arbitrary principal rays passing through the plane of the ophthalmic lens, and

the shape of the refractive surface whose shape is not formed beforehand is determined so that ΔPall expressed by Equation (1) below shows a minimum value or a specified value or less,

where E(α) is the refractive power in the meridian direction that is required for the refractive correction of the eye of the user in the meridian direction at an arbitrary angle of α from the standard meridian, and D(α) is the refractive power in the meridian direction of the lens

$$\Delta Pall = \int_a^b \left|\Delta P(\alpha)\right| d\alpha \quad \ldots (1)$$

where, ΔP(α) is a function expressed as ΔP(α) = D(α) − E(α), and *a* and *b* are values that satisfy the equation *b* − *a* = nπ, where n is a natural number.

10. (New) A method for designing ophthalmic lenses in which at least one surface among the set of refractive surfaces on the object side and eye side in the mounted state has a spherical or aspherical surface shape that is formed beforehand, and at least one refractive surface has an aspherical surface shape,

said method being characterized in that designing is performed so that the shape of the refractive surface whose shape is not formed beforehand among the set of refractive surfaces is an aspherical surface shape which is such that the aberration of the ophthalmic lens is corrected in consideration of the laws of Donders-Listing in accordance with at least the refractive power that is necessary for refractive correction of the user or the refractive power that is necessary for astigmatic correction, or both,

and said method further being characterized in that an arbitrary meridian of the refractive power necessary for refractive correction of the user is taken as a standard meridian in arbitrary principal rays passing through the plane of the ophthalmic lens, and

the shape of the refractive surface whose shape is not formed beforehand is determined so that ΔPav expressed by Equation (2) below shows a minimum value or a specified value or less,

where E(α) is the refractive power in the meridian direction that is required for the refractive correction of the eye of the user in the meridian direction at an arbitrary angle of α from the standard meridian, and D(α) is the refractive power in the meridian direction of the lens

$$\Delta Pav = \frac{1}{|b-a|}\int_a^b |\Delta P(\alpha)|\, d\alpha \quad \ldots (2)$$

where, ΔP(α) is a function expressed as ΔP(α) = D(α) - E(α), and *a* and *b* are values that satisfy the equation *b* - *a* = nπ, where n is a natural number.

11. (New) A method for designing ophthalmic lenses in which at least one surface among the set of refractive surfaces on the object side and eye side in the mounted state has a spherical or aspherical surface shape that is formed beforehand, and at least one refractive surface has an aspherical surface shape,

said method being characterized in that designing is performed so that the shape of the refractive surface whose shape is not formed beforehand among the set of refractive surfaces is an aspherical surface shape which is such that the aberration of the ophthalmic lens is corrected in

consideration of the laws of Donders-Listing in accordance with at least the refractive power that is necessary for refractive correction of the user or the refractive power that is necessary for astigmatic correction, or both,

and said method further being characterized in that an arbitrary meridian of the refractive power necessary for refractive correction of the user is taken as a standard meridian in arbitrary principal rays passing through the plane of the ophthalmic lens, and

the shape of the refractive surface whose shape is not formed beforehand is determined so that at least one of the values ΔAS or ΔMP satisfying the following conditional equations shows a minimum value or a specified value or less, where ΔPmax is the maximum value and ΔPmin is the minimum value of $\Delta P'(\alpha) = D(\alpha) - E(\alpha)$ in the range of $a \leq \alpha \leq b$ or $b \leq \alpha \leq a$, with $E(\alpha)$ being the refractive power in the meridian direction that is required for the refractive correction of the eye of the user in the meridian direction at an arbitrary angle of α from the standard meridian, and $D(\alpha)$ being the refractive power in the meridian direction of the lens

where, $\Delta AS = |\Delta Pmax - \Delta Pmin|$ ... (3)

$$\Delta MP = (\Delta Pmax + \Delta Pmin)/2 \quad \ldots (4)$$

and a and b are values that satisfy the equation $b - a = n\pi$, where n is an arbitrary integer excluding zero.

12. (New) An ophthalmic lens manufacturing method designed in accordance with the ophthalmic lens design and design data obtained thereby according to any one of Claims 9 through 11, which is characterized in that and method has a process which is such that in a lens in which at least one surface among the set of refractive surfaces on the object side and eye side in the mounted state is a refractive surface having a spherical or aspherical surface shape that is formed beforehand, the shape of the refractive surface whose shape is not formed beforehand is designed in accordance with said ophthalmic lens design method, and the refractive surface whose shape is not formed beforehand is worked in accordance with said design data.

13. (New) A method for manufacturing an ophthalmic lens designed in accordance with the ophthalmic lens design and design data obtained thereby according to any one of Claims 9 through 11, and using as an element material a semi-product ophthalmic lens in which at least one surface

among the set of refractive surfaces on the object side and eye side in the mounted state is a refractive surface having a spherical or aspherical surface shape that is formed beforehand, and at least one refractive surface has an aspherical surface shape, said ophthalmic lens manufacturing method being characterized by steps of attaching the semi-product ophthalmic lens to a shape working apparatus, and working the refractive surface of the semi-product lens whose shape has not been formed beforehand by means of the shape working apparatus on the basis of said design data to produce a finished product.

14. (New) The ophthalmic lens manufacturing method according to Claim 13, which is characterized in that design data is determined at a different location from the location where the shape working apparatus is present, and is transmitted to a location where the shape working apparatus is present via a communication device.

15. (New) A computer readable medium that stores a computer program which designs ophthalmic lenses according to the method for designing ophthalmic lenses of Claim 9.

16. (New) A computer readable medium that stores a computer program which designs ophthalmic lenses according to the method for designing ophthalmic lenses of Claim 10.

17. (New) A computer readable medium that stores a computer program which designs ophthalmic lenses according to the method for designing ophthalmic lenses of Claim 11.